

# QST CANADA

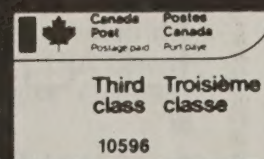
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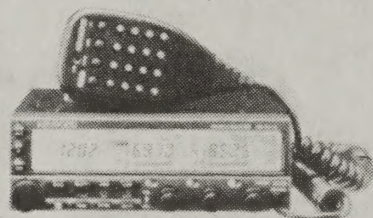
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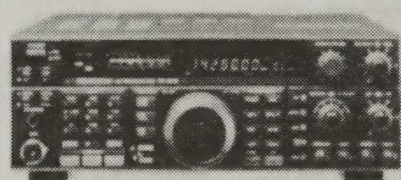
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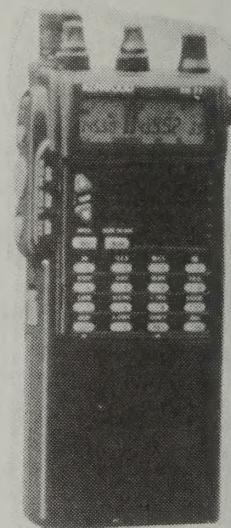
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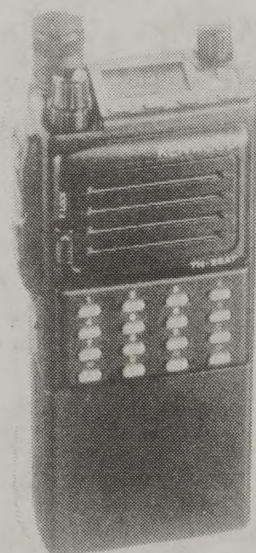
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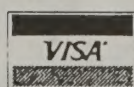


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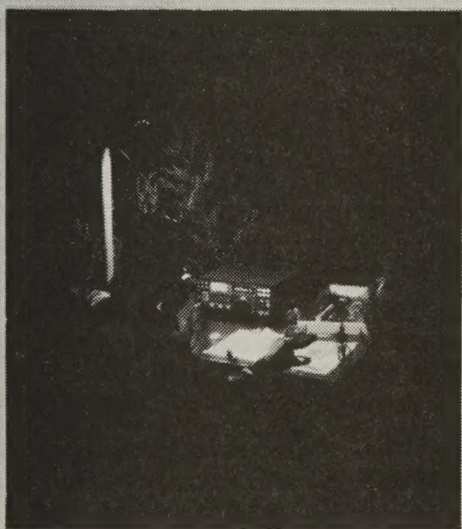
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## ABOUT THE COVER



It's outside and it's ten at night and the air is getting cold, but Bruce MacLean, VE3GBM, operating VE3QST from EN92, is still working them on 432 during the September VHF Contest.

# It Seems to Us.../Il nous semble...

## WARC-92: the IARU Position

*This month the "us" in "It Seems to Us..." is a little bigger than usual: the worldwide Amateur Radio community represented through IARU. The following statement was prepared by the IARU Administrative Council which met in Bandung, Indonesia, in conjunction with the recent IARU Region 3 Conference. CRRL Past President Tom Atkins, VE3CDM, serves on the Administrative Council. Note that Region 1 is North and South America, Region 2 is Europe and Africa, and Region 3 is the rest of the world. This statement, which will guide IARU staff at WARC-92, is endorsed by CRRL.*

### Summary Views of the IARU Concerning WARC-92 Allocations Issues

1. Introduction: The IARU (International Amateur Radio Union) is an association of 127 member-societies. It is recognized by the International Telecommunications Union (ITU) and participates in the work of ITU by providing international representation for the amateur and amateur satellite services. There are more than 2,000,000 licensed amateur stations. The annual rate of growth of the amateur service is 7%.

2. General Comments: The WARC-92 agenda... provides that the conference safeguard interests that may be affected by changes to the Table of Frequency Allocations. While new allocations for the amateur and amateur satellite services are not on the conference agenda, it is possible that actions taken at the conference may affect allocations of the amateur services.

It is the view of the IARU that changes in allocations to other services should not result in the reduction of the usefulness of the limited spectrum now allocated to the amateur services.

### 3. Summary Views on Certain WARC-92 Agenda Items

Item 2.2.2: possible extension of the frequency spectrum allocated exclusively to HF broadcasting (HFBC)...

While taking no position on the extension of HFBC spectrum, the IARU believes that any modification to the 7-MHz broadcasting service allocation should correct the longstanding problem of interference from the broadcasting service to the amateur services resulting from the allocation of the band 7100-7300 kHz to the broadcasting service in Regions 1 and 3, and to the amateur services in Region 2.

The IARU endorses the proposals made by certain administrations for an exclusive worldwide 300-kHz allocation for the amateur services in the vicinity

of 7 MHz as a consequence of any expansion of the 7-MHz broadcasting service allocation.

The IARU further believes that proposals to provide only 200 kHz worldwide to the amateur services, while encouraging to amateurs in Regions 1 and 3, do not adequately meet the rapidly growing needs of the amateur services and would result in an unacceptable loss in capability for these services in Region 2.

Agenda Item 2.2.3: consideration of the allocation of frequency bands to the broadcasting-satellite service and associated feeder links, a) for the broadcasting-satellite service (sound) in the range 500-3000 MHz..., and

Agenda Item 2.2.4: consideration of an allocation of frequency bands to the mobile and mobile-satellite services and associated feeder links: a) in the approximate range 1-3 GHz..., b) for the development in the approximate range 1-3 GHz of a worldwide system of public correspondence with aircraft..., or designate for this use a band already allocated to the mobile service, c) for the development of the international use of the mobile service for future public land mobile telecommunications systems..., or designate for this use a band already allocated to the mobile service, and d) consider possible allocations of up to 5 MHz of a frequency band below 1 GHz to low-orbit satellites on the basis of appropriate sharing criteria:

The IARU view is that the provision of suitable bands for these services and systems must be accomplished without reducing the spectrum allocated to the amateur and amateur-satellite services, and without introducing new sharing that would have the effect of reducing the access to existing bands that is necessary to meet the various requirements of the amateur services.

Agenda Item 2.7: to develop new recommendations and resolutions to the agenda of the conference, including [recommendations and resolutions concerning] the meteorological aids service in frequency bands below 1000 MHz and present allocations to space services above 20 MHz which were not placed on the conference agenda.

The IARU view is that the frequencies corresponding to, or adjacent to amateur satellite allocations, including 435-438 MHz, should not be considered, and that identifying specific frequencies for this application should not be done until the relevant CCIR (International Radio Consultative Committee) studies are concluded.



All letters are considered carefully. Letters are edited for clarity and may be condensed in order to have more information and readers' views presented. The publishers of *QST Canada* assume no responsibility for statements made by correspondents.

## MERGER EFFORTS

The Executive Committee of the New Brunswick Amateur Radio Association, Inc. (NBARA), would like to advise that we are pleased with the continuing efforts to merge CRRL and CARF to form one national organization representative of all Canadian amateurs.

In a spirit of goodwill, NBARA encourages the early completion of the merger, and we offer our assistance to this end and pledge our continuing support of Radio Amateurs of/du Canada. —*Garth Johnson, VE1EH, Secretary, NBARA, Bathurst, NB*

## TOWERS

Recent developments regarding tower regulation by local officials are threatening our hobby. The most recent episode in Edmonton is an example of the "hands-off" attitude of DOC which cannot be tolerated. It is time for us to put pressure on the federal government to initiate safeguards so we can pursue our hobby within reasonable limits. I suggest that the first act of a newly formed Radio Amateurs of/du Canada (RAC) should be to lobby for a Canadian equivalent of PRB-1.

Those of us who live in areas where trees, buildings and other antenna towers

are as high as a proposed amateur tower should not have to obtain permission from anyone as long as the tower is on the amateur's property and is constructed in a safe manner. Local officials should not have the authority to place any financial or administrative impediments in front of those who enjoy Amateur Radio and are able to provide volunteer services for the community. —*Robert Kaufmann, VE4GV, Winnipeg, MB*

DOC has taken a special interest in the tower case mentioned briefly in September *QST Canada*. The amateur reports that officials of DOC Edmonton have been very helpful. They believe he has done everything possible to satisfy his neighbours and are now supporting him. The US FCC's PRB-1 has not been a total success. Victories have been won, but only on a case-by-case basis, and often at great cost to individual amateurs.

## MEDICAL NET

Is there a Canadian net for professionals in the medical field or with a medical background, similar to the US net? —*Ned Fahmi, VE3SLX, Box 1107, Deep River, ON K0J 1P0*

## WHERE'S MY QST CANADA?

I am curious. Why do I keep getting my *QST Canada* so late? —*Kevin Clements, VE7CYT, Aldergrove, BC*

There have been several reason including slow delivery by Canada Post, computer failure and your editor's new job. To ensure that the production schedule doesn't slip again, we are bringing some new people on board to assist with key-boarding and editing.

### The Canadian Radio Relay League, Inc La Ligue Canadienne de la Radio Amateur, Inc



The Canadian Radio Relay League (CRRL) is a noncommercial association of radio amateurs organized for the promotion of Amateur Radio communications and experimentation, for the establishment of networks to provide communications in the event of disasters or other emergencies, for the advancement of the radio art and the public welfare, for the representation of radio amateurs in legislative and other matters, and for the maintenance of fraternalism and a high standard of conduct.

CRRL is incorporated under the Canada Corporations Act. Its affairs are governed by a seven-member Board of Directors elected every two years by the CRRL general membership. CRRL is noncommercial, and no one who could gain financially by the shaping of its affairs is eligible for membership on its Board.

CRRL is the Canadian member-society of the International Amateur Radio Union (IARU). "Of, by and for the Canadian Radio Amateur", CRRL numbers within its ranks the vast majority of active amateurs in the nation and has a proud history of achievement in amateur affairs.

A bona fide interest in Amateur Radio is the only essential requirement for membership. An Amateur Radio licence is not required, although full voting membership is granted only to licensed amateurs in Canada.

Membership inquiries and general correspondence should be directed to CRRL Headquarters, Box 56, Arva, ON N0M 1C0 Tel (519) 660-1200.

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\*Voting member, CRRL Board of Directors

## Calendar



**Attention:** Deadline for items is the 20th of the second month preceding month of publication. For example, information should reach *QST Canada* by January 20 to be included in a March issue.

**CRRL QST QSO Party:** 0000-2400 UTC, Sunday, November 3. See special notice for details

**Guelph, ON:** Special-event station VG3W, 1500-2200 UTC daily on November 9-11. See note in this month's Happenings column for details.

**Knokke, Belgium:** Special-event station ON4CLM, October 27-November 2. See note in this month's Happenings column for details.

**Newmarket, ON:** 14th Annual Hamfest, Saturday, November 10 at Huron Heights Secondary School. Sponsored by York Region Amateur Radio Club (YARC). 150 vendors, good parking, refreshments. Opens at 0900, 0630 for vendors. Admission: \$5. Talk-in on VE3YRC, 147.225 MHz (+). For tables or more information, contact YARC, Box 352, Newmarket, ON L3Y 4X7.



# Soviet Radio Tour

## Highlights of the 1991 Leningrad Hamvention and more...

By Gregory Hollinger, VE3NXB  
207A North Lake Drive  
Waterloo, ON N2V 1A9

If you missed out on the fun, here are some of my recollections of the many events of the 1991 Soviet Radio Tour that took place over 13 days of this past summer. Offered by the Association for International Cultural Exchange Programs (AICEP, based in Montreal), the tour became the ultimate adventure in Soviet glasnost and goodwill.

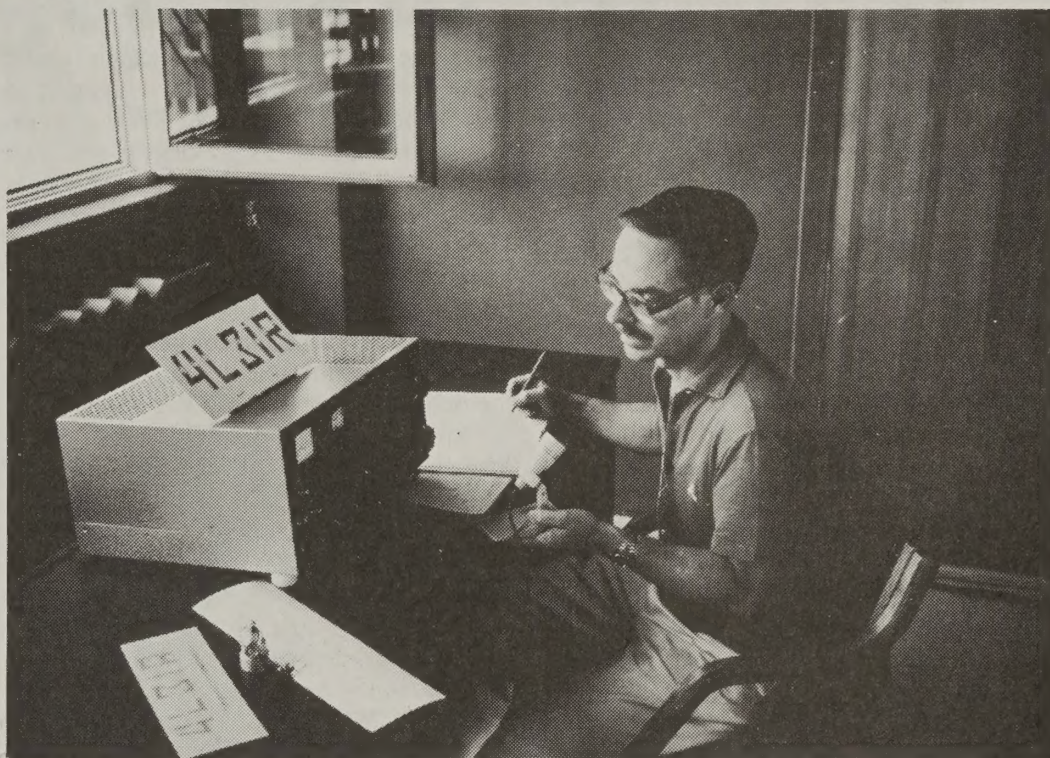
### Departure

Anticipation and anxiety grew among the six participants who met at Mirabel Airport on July 29. There was Dave Oszvari, VE3MNN of Burford, Ontario, Oscar Doucett, VE1YI of Moncton, New Brunswick, Sheldon and Darlene Harvey of Greenfield Park, Quebec, Lewis Coulborn of New York City, and myself, VE3NXB. Sheldon Harvey was our tour leader. Two other participants, Royal and Darlyne Jaynes of Eugene, Oregon, were already touring in the USSR and would meet us in Moscow. After introductions and pre-tour announcements, we were felt charged with nervous excitement. We boarded our airplane for Prague, Czechoslovakia, and Moscow.

### Moscow

We arrived at Moscow's Sheremetyevo Airport in the late afternoon of the following day. After meeting our host, Alex Epstein, we boarded a bus for the Salute Hotel. A dinner and high-spirited performance by a Ukrainian dance troupe completed that day.

The next two days in Moscow were spent taking bus trips—to Gostel Radio and Box 88, Red Square, the Kremlin, the Soviet Space Exploration Exhibit, the Moscow Circus in Gorky Park, Arbat Street, and the McDonald's Restaurant. The Gostel Radio facility is similar in function to our CBC domestic broadcast centre. Here, we were taken on a tour of the studios and control rooms. One television studio produced a program similar to "Wheel of Fortune". Then our host explained that, as a big surprise, we were going to be the special guests at the taping of a talk-interview radio program. Hardly believing what was about to happen, I could only wonder at the extent of change in the Soviet Union. Sitting around a large table in one the studios, we individually



The author, VE3NXB, operates Leningrad Hamvention special-event station, 4L3IR. Yes, that beautiful transceiver is handmade.



Yuri Mostovoy, UA6ECU (left), Gene Ivisnenko, UA6ECH (right) and friend outside the Leningrad Hamvention building. (Photos courtesy of the author)



introduced ourselves and explained the reasons and expectations for our visit.

The visit to Box 88 of the Krenkel Central Radio Club was a fascinating treat. Tables were piled high with QSL cards from all over the world. We enjoyed meeting the helpful and friendly people who deftly handle the QSLs.

It was now time to leave Moscow to take the 650-km overnight train ride to Leningrad. Our bus took us to Moscow's Kursky Railway Station, a monstrous building teeming with people rushing to and from the many wide rail platforms. We found our wagon and piled our luggage into narrow compartments on the train. For the Harveys, Dave and me who were not used to rail travel, this was to be a special night. We opened the windows, to let in much needed cool air, and we watched the city, its suburbs, and let the peaceful tranquility of the Russian countryside glide by.

### Leningrad Hamvention

At the Leningrad railway station, we met our new hosts, Anna Boldisheva and Alex Troshin, and then boarded a bus for the Leningrad Central Institute for Higher Learning. A large modern university complex, the institute was to be our home for the next five days as well as home to the Leningrad Hamvention.

We registered on the afternoon of Friday, August 2. Registration was followed by a fantastic evening of partying with our new Amateur Radio friends from all corners of the Soviet Union. At the hamvention, instead of bringing VHF/UHF handhelds and tons of radio equipment to sell, the Soviets bring all manner of food and drink. We were invited to rooms to chat and share homemade breads, meats, sausages, cheese, jam and even Siberian apples. As for drink, there was plenty of vodka and wine. QSL cards and pins were exchanged at every opportunity.

Saturday, hamvention activity day, started with a breakfast for all followed

by opening ceremonies in a large conference hall. Greetings came from Inter-Radio Leningrad, the Central Radio Club of the USSR, and hamvention sponsors. Next, a series of DXpedition presentations: Walvis Bay led by Pierre Essinger F6HIZ, Afghanistan led by Roman Stepanenko YAØRR and the CQ WW DX contest team led by PJ9W. In other halls there were other presentations: Amateur Radio emergency communications led by UZ3AU and K1CE, and an SWL-DX presentation led by our own Sheldon Harvey.

### On our own...

In the afternoon, Dave, Lewis and I broke away from the official agenda to join Sheldon and a group of SWL enthusiasts. Our mission, to go off on our own and visit Radio Baltica, a new, privately operated, medium-wave broadcast station. Here we met station personnel and took pictures of the broadcast studio and the control room. Then Sheldon was invited to "go live" in an impromptu discussion of the hamvention and our visit—all to the delight of our Radio Baltica friends.

After pins and good-byes were exchanged, we headed for the street and a walk to the site of a decommissioned 50-kW shortwave transmitter that had been used for jamming. Two large red and white steel towers held an antenna array not more than a few hundred metres from an apartment block. TVI, anyone?

Back to the hamvention: CQ, CQ, CQ de 4L3IR. Wow! Excitedly I slapped the paddles of the homemade key. Before me was a beautiful handmade transceiver with an IF bandpass monitor scope and a digital frequency display—a 400-watt signal and a vertical antenna on the roof. Now if only propagation would improve.... It didn't, and regretfully too few logbooks in Canada carry the callsign of this special-event station.

Later, two new Amateur Radio friends invited Dave and me to an evening on the town. Gene, UA6ECH, and Yuri, UA6ECU, took us to a historic restaurant.

We drank many toasts to our friendships and those of our two countries. Then, still laughing and talking, we explored the picturesque streets and the many Venice-like canals of Leningrad—all in the wee small hours of the night.

### Remaining days...

The remaining days allowed for sightseeing tours to many fabulous places including several gardens. On the return train trip to Moscow, we flew small Canadian flags from our windows and, as a gesture of goodwill, gave them away at each stop.

Now it was time to leave the Soviet Union for the flight to Prague and a two-day visit there. Sightseeing, shopping and an informative tour of Radio Prague International concluded the 1991 Radio Tour to the USSR and Czechoslovakia. ■


IARU—continued from page 18

science college or pilot schools in those areas are targeted for club stations. Each station will have simple, inexpensive but effective transceiver sets.

"BARL has a present membership of only 25. This number will start to grow once licensing issuing becomes more simple. An amateur licence is a prerequisite for becoming a full member of BARL. Some exceptions are made for founding members and persons with a demonstrated commitment to Amateur Radio.

Last year, BARL held several seminars on Amateur Radio including a seminar on packet radio. BARL maintains regular liaison with telecommunications officials. Although it has not been finalized who will attend WARC-92 as a member of the Bangladesh team, BARL has contacted possible participants and explained to them the IARU position on various issues.

"Thus, a 12-year effort by the founding members of BARL has succeeded." ■



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- **Multi-function scanning.** Band and memory channels can be scanned, with time operated or carrier operated scan stop.
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- **Dual Tone Squelch System (DTSS).** Compatible with the TH-26AT Series and the TM-941A Triple bander, as well as other Kenwood series transceivers, this selective calling system uses standard DTMF to open squelch.
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- **BC-15:** Rapid charger for PB-13, 14
- **BH-6:** Swivel mount • **BT-8:** Six cell AA Alkaline battery case • **HMC-2:** Headset with VOX and PTT • **PB-13:** 7.2 V, 700 mAh NiCd pack • **PB-14:** 12 V, 300 mAh NiCd pack • **PG-3F:** DC cable with filter and cigarette lighter plug • **PG-2W:** DC cable
- **SC-30:** Soft case • **SMC-31:** Standard speaker mic • **SMC-32:** Compact speaker mic
- **SMC-33:** Compact speaker mic with controls
- **WR-2:** Water resistant bag.



- **Automatic offset selection (TH-27A).**
- **Direct keyboard frequency entry.** The rotary dial can also be used to select memory, frequency, frequency step, CTCSS, and scan direction.
- **CTCSS encode/decode built-in.**
- **Supplied accessories:** Rubber flex antenna, battery pack, wall charger, belt hook, wrist strap, dust caps.

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Radio AmateuR du Canada

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**R**ECEIVE 500 KHz-30 MHz

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Mardi-mercredi (9h-17h) jeudi-vendredi (9h-21h) samedi (10h-15h)



## CRRL Supports 40-Metre Proposal

CRRL recently asked DOC and the DOC WARC-92 team to support an IARU proposal that would give the amateur service 300 kHz of spectrum, worldwide exclusive, for the 40-metre band. At present, only amateurs in ITU Region 2 (North and South America) have access to a full 300 kHz, 7-7.3 MHz. In the remainder of the world, amateurs are limited to 7-7.1 MHz, with 7.1-7.3 being allocated to international broadcasting. To achieve the full 300 kHz worldwide, it is expected that the 40-Metre amateur band would have to move down 100 kHz to 6.9-7.2 MHz, and broadcasters would have to move up 100 kHz to 7.2-7.4 MHz. The only loser in this arrangement would be the fixed service. However, HF fixed service links are steadily being replaced by satellite links, and IARU is proposing a generous changeover time—not until 2007. For these reasons there is a good chance that this proposal—which is being presented to all telecommunications administrations by IARU-member Amateur Radio societies—will be supported at WARC-92.

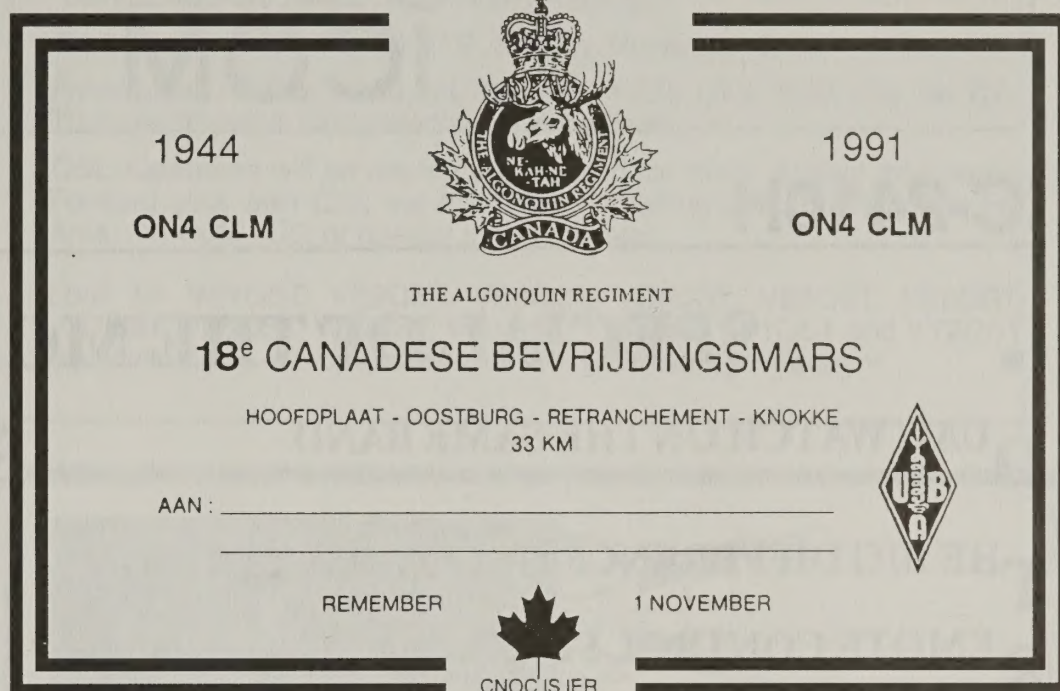
A reminder that WARC-92 is less than five months away. As of mid-October, the Defence of Amateur Radio Fund (DARF), established to help IARU defend our amateur frequencies at WARC-92, stood at just over \$20,000. If you have not yet contributed to DARF, please consider doing so now. Cheques may be sent DARF, c/o Tim Ellam, VE6SH, 107 Strathern Rise SW, Calgary, AB T3H 1R5.

### ACROSS CANADA

□ DOC has issued a new Index of Spectrum Management Documents Available to the Public. Listed inside: international agreements, TRCs and publications related to RFI—all of interest to radio amateurs. The new Index is available through regional and district offices of DOC.

□ VE3OSC, the amateur station at the Ontario Science Centre, is back on the air until January 1992 at least. The occasion: a special Ontario Science Centre exhibition called *Siberia—Northern Discovery and Survival*. Listen for VE3OSC Monday to Friday 1100-1500 EST/EDT, and on weekends at 1100-1700 EST/EDT, contacting floating ice stations and stations in northern Canada and Siberia. VE3OSC does need volunteer operators. If you can help, contact Diane Young at the Ontario Science Centre, telephone (416) 429-4100, extension 533.

□ Calgary Amateur Radio Club is offering its VE6AO Trophy to the Canadian



This year's ON4CLM (Canada Liberation Movement) Award features the crest of the Algonquin Regiment, one of nine Canadian Regiments involved in the liberation of Knokke, Belgium, in 1944. For details on how to earn this award, see the item below.

high-scoring operators in the CW (November 2-3) and SSB (November 16-17) portions of the ARRL November Sweepstakes. Names of winning operators will be taken from *QST*. The actual VE6AO trophy, with the two winners' names recorded, will remain in Calgary. Winning operators will receive a certificate and a miniature trophy to keep.

□ To commemorate the 89th anniversary of Marconi's first west-to-east transmission across the Atlantic, from Glace Bay, Nova Scotia, to Poldhu, Cornwall, England, on December 15, 1902, members of the Marconi Amateur Wireless Association of Sydney, Nova Scotia, will operate special-event station VA1S from the site of Marconi's station, VAS, near Glace Bay throughout the month of December. To confirm contacting VA1S, an attractive commemorative certificate will be available for \$3 or five IRCs. Write to Al Leith, VE1AL, 846 George Street, Sydney, Nova Scotia B1P 1L9.

□ Dennis Pekrul, VE7CXN, advises that five years have passed since EXPO '86, and that he will be closing the log on VE7EXPO in six months time. If you still need a card for VE7EXPO, contact Dennis before May, 1992.

□ Because of a crashed hard disk, there was no official CRRL bulletin for October 20. First time in over ten years...

□ A reminder to all CRRL members in the Maritimes-Newfoundland and Ontario Sections: You have been operating without duly elected Section Managers for

some time. Nominations are open for the office of Section Manager in both these Sections. For details on how to nominate, see the 1991 October *QST Canada* Section News column.

### REMEMBERING THE WARS...

□ On October 27-November 2, special-event station ON4CLM (Canada Liberation Movement), will commemorate the 1944 liberation of Knokke, Belgium. Look for ON4CLM on the following frequencies: SSB—3.685, 7.045, 14.145, 21.245 and 28.545 MHz; CW—3.515, 7.012, 14.020, 21.020 and 28.020 MHz. This year's ON4CLM award honours the Algonquin Regiment, one of nine Canadian regiments involved in the liberation. Cost of the award is \$5 or ten IRCs. All proceeds go to a fund used to maintain memorials and commemorative displays related to the liberation. Write to ON4CLM, Box 110, B-8300 Knokke Heist, Belgium.

□ To commemorate Remembrance Day, special-event station VG3W will operate from the Colonel John McCrae House Museum, Guelph, Ontario, 1500-2200 UTC daily, on November 9, 10 and 11. McCrae, who lost his life in World War 1, is internationally known for his poem, "In Flanders Fields". Look for VG3W on CW and SSB in the 40-, 20-, 15- and 10-metre bands. A special QSL card will be available. Send an SASE or one IRC to Guelph Amateur Radio Club, Box 1305, Guelph, Ontario N1H 6H9.



Radio Amateur du Canada

ICOM

**IC-2410H**

## SPECIAL OF THE MONTH

**D**UAL WATCH ON THE SAME BAND

**\$ 889.00**

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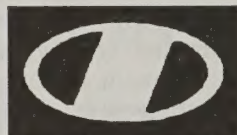
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36 MEMORY CHANNELS



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- NOBODY WILL UNDERSELL US !
- WE WILL BEAT ANY PRICES AND MORE.
- THAT OUR SERVICE IS PROFESSIONALY THE BEST.
- THIS IS AN OTHER PLUS.

73 (s)

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Mardi-mercredi (9h-17h) jeudi-vendredi (9h-21h) samedi (10h-15h)



## NOTES FROM ALL OVER

☐ Albania is in the air again. As predicted, Z1A appeared on Tuesday, September 17, a day after opening ceremonies for the IARU Albania Project. Martti Laine, OH2BH, was at the controls on 20-metre SSB. Albania is expected to apply for IARU membership soon.

☐ Mozambique has legalized Amateur Radio. A joint Soviet-Japanese DXpedition recently put Myanmar (formerly Burma) on the air. Hopefully, this will lead to a revival of Amateur Radio in that country as well.

☐ Amateur Radio recently returned to Bangladesh. Licenses for S21A and S21B were issued on October 5, and six more licences will be issued soon.

☐ Chile now has a Novice-class licence. Holders are restricted to operation on the 80- and 40-metre bands, and the 146-148-MHz portion of the 2-metre band. Bermuda's Novice licence, which used to have a two-year life, is now good indefinitely.

☐ The Sea Explorers of Calcutta, India, have announced a raft expedition that will take five crew members including two amateurs from Calcutta to Singapore and back. The expedition will begin on December 26. Look for VU2MFY on 20-, 15- and 20-metre CW and SSB. ■

## Ham-Ads



Advertisements must pertain to Amateur Radio. For individuals or firms offering products or services for sale, the rate is \$0.50 a word. This is reduced to \$0.25 per word for those seeking to dispose of or acquire personal station equipment. Telephone numbers count as one word. No charge for postal codes. Unless specified, a Ham-Ad will appear in the next available issue of *QST Canada*. Send Ham-Ads to CRRL, Box 56, Arva, ON N0M 1C0.

**FOR SALE:** Homebrew 3CX800A7 2-metre amplifier. Used very little. Design out of *ARRL Handbook*. Complete with power supply and cabinet. Uses 110 Vac. Offers! Andrew Kozlowski, 18 Cambrian Dr, Kenora, ON P9N 4A3, Tel (807) 468-6300.

**FOR SALE:** Multiband trap dipole, 47 feet long, new: \$80. Wally Zufelt, 21 Midden Cr, Weston, ON M9R 3L7, Tel (416) 244-1905.

**FOR SALE:** Ten-Tec Paragon, Ten-Tec Hercules Amplifier, Ten-Tec tuner, all rack mounted: \$3700. Gordon Watt, VE4IF, 23 Mackie Bay, Winnipeg, MB R2Y 1V8, Tel (204) 885-6361 or 889-2990.

**FOR SALE:** Kenwood TS-440S with PS-50 continuous-duty supply. Like new, original shipping carton and manuals: \$1700. Will consider multi-mode 2-metre or 70-centimetre transceiver in trade. Ten-Tec Century 21 rig. Great for CW or as a second rig. Offers. R. Renaud, VE3JFY, 276B Dalehurst Dr, Nepean, ON K2G 4J5, Tel (613) 228-0202 or (613) 998-1582.

**FOR SALE:** C64, 1541 disk, 1702 monitor, joystick, s/w: \$425. LPA1K autotune linear, 1.6-18 MHz 2 x 3-400Z: \$525. Triton I, 251M power supply, mike, key, foot switch, logbook: \$425. MFJ482B memory keyer: \$90. Frank Davis, VO1HP, 159 Highland Dr, St John's NF A1A 3C6, Tel (709) 579-1254, Fax (709) 739-3955.

**JEHOVAH'S WITNESSES:** Amateurs, SWLs: please send full details and telephone number to Bob Ellis, Box 7349, Winter Haven, FL 33883-7349.

## 1991 November QST QSO Party

*General:* QST QSO Parties are ideal opportunities to work the eight out of a possible thirteen CRRL QST-suffix stations and qualify for the CRRL "Worked All QST Award" Plan to join in the fun!

*Time and date:* 0000-2400 UTC, Sunday, November 3.

*Frequencies:* 3.760, 7.060, 14.130 and 21.250 MHz, SSB only, no CW. This new format is being tried as an experiment.

*QSL:* Operators will be issuing a QSL card for every contact they make. Forward your own QSL via the CRRL Outgoing QSL Bureau, Box 56, Arva, ON N0M 1C0, or directly to the operator.

Look for VE1QST, VE2QST, VE3QST, VE4QST, VE5QST, VE6QST, VE7QST, VE8QST, VE0QST, VO1QST, VO2QST, VY1QST and VY2QST on November 3.—*Dick Reiber, VE3IBV, QST Callsign Manager* ■



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**Sinclabs Inc., Specialty Products, 85 Mary Street,  
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Phone: (416) 841-0624 Fax: (416) 841-6255**



## ICOM IC-2SAT

**\$389**

One of the Smallest Handhelds available today. The IC-2SAT has 48 memories and 1 call channel. There are 10 autodialer memories which can hold 15 digit telephone numbers. With either a 12 VDC battery, or external 12 volts (with CP-12), the IC-2SAT can generate an amazing 5 watts. With a receiver range of 108-174MHz, you can listen to Aircraft as well as the rest of the VHF band.



## IC2SA

**\$279**

We also have the IC-2SA available, but without Touch-tone features. (not shown)

## IC-24AT

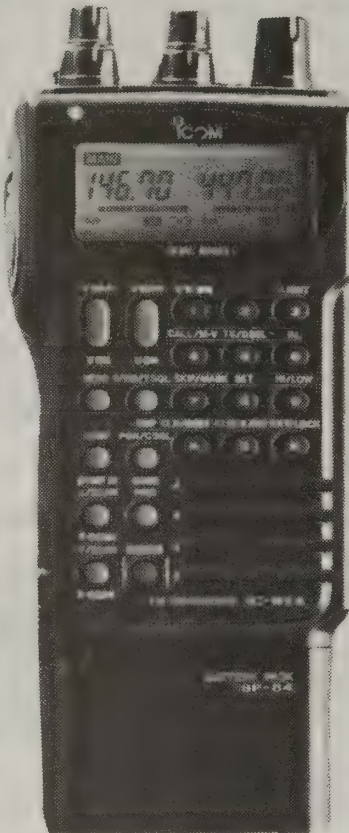
**\$499**

The famous IC-24AT is still available. With 40 memory channels, and 2 programmable call channels, you will be able to store all your favourite repeaters. You also have 4 DTMF code memory channels that can store up to 15 digits for instant recall to autopatch. For repeaters that have a full duplex option, you can also hold a full duplex phone patch (simultaneously transmit on one band and receive on the other). With either a 12V battery, or external 12VDC connected, the IC-24AT is able to transmit 5 Watts of RF power. The 24 hour clock will also turn your IC-24AT on and off at preset times. The wide range receiver covers from 108-136MHz AM, 136-174MHz FM, 430-480MHz, and 750-940MHz. With the BP-82, the unit is only 2.0" w x 5.4" h x 1.4" d and weighs only 340 grams.



## ICOM IC-W2A NEW!

The NEW IC-W2A Dual Band FM Transceiver is the most current Dual Band handheld available on the market. The IC-W2A comes with a BP-84 (1000mAh, 7.2V) standard for long lasting operation. With dual band receive, you can also receive on one band while transmitting on the other or listen to 2 bands at once. The IC-W2A has independent speaker jacks for both bands, external 12VDC connection, Auto dialing capability, and High-speed scan with priority watch. 60 memory channels and 2 call channels allow quick and easy access to your favourite frequencies. The IC-W2A comes in a splash resistant case for those severe outdoor conditions. The 24 hour clock will turn the IC-W2A either on or off automatically. The wide coverage receiver covers 108-136MHz (AM Aircraft), 136-174MHz, 430-480MHz, and 750-940MHz. CTCSS receive and transmit is included with the IC-W2A. This is one of the easiest to read LCD readouts that we have seen. It measures 2.1" w x 5.3" h x 1.4" d and weighs only 530 grams.



## ICOM IC-2S

Widen the borders of complete coverage! The IC-2SRA receives everything from 25-950MHz! The 2 meter portion of the handheld receives 138-174MHz and transmits on the 2 meter band. With the wide range receiver, you can listen to FM broadcast (Wide FM), TV audio, FM, and AM. There are 30 memories available in the Ham Band, and 60 in the wide range receiver. The memories will store CTCSS, split, and mode information. Direct frequency entry allows you to quickly adjust your frequencies! Encode and Decode CTCSS are also included. The IC-2SRA comes with a PB-82, wall charger, 2 Meter antenna, and Wide Range receiver antenna. With 12VDC (either external with CP-13, or with PB-85) the IC-2SRA receives 500 watts, and weighs only 500 grams.

## ICOM IC-2A

One of the first Fully Synthesized handhelds with a thumbwheel top. Full 2 meter coverage. We have a little of this little gem. We have a limited quantity. If you are bothered by interference, this is the one for you. Complete with BP-3, charger, and belt clip.

## ICOM IC-02

The ICOM IC-02AT features a wide band scan, BP-7 (5 Watt N-type) antenna. With direct frequency entry, you can quickly adjust your frequencies (receive and transmit). With a 12VDC battery, you will have to hurry to get it.

## Top Trades

We take your clean, late model equipment. Write or Call for more information.

## Rare Find!

We were able to locate 1 NEW ICOM IC 2KL	\$2499
Also mint condition used:	
IC-751A HF Xcver with Keyer & 500Hz CW	\$1299
IC-751 HF Xcver	\$1099
AT-500 Auto Antenna Tuner	\$ 499
PS-30 metered 25 amp power supply	\$ 399
PS-55 20 amp power supply (matches IC-735)	\$ 199
IC-2KL 500 Watt solid state amp (no tuning)	\$1999

## Special ET-1 & G5RV \$199

Van Gorden G5RV HF all band antenna (80-10M, except 30M) and AEA ET-1 antenna tuner. Normally priced at \$248, but we have a package deal of \$199. Quantities are limited to stock on hand.

## New Lower ICOM Prices!

Since April 1991, Atlantic Ham Radio has been negotiating with ICOM to narrow the GAP between the USA and Canadian Prices. On September 24, 1991, we were finally successful in establishing a NEW Canadian Price List that reflects our work over the past 5 months.

The Prices you see in this advertisement are only a sample of the NEW, LOWER ICOM Canadian prices. Call us for pricing on any ICOM equipment. I'm sure you will be pleasantly surprised.

Remember, it was ATLANTIC HAM RADIO that brought about these new lower prices.

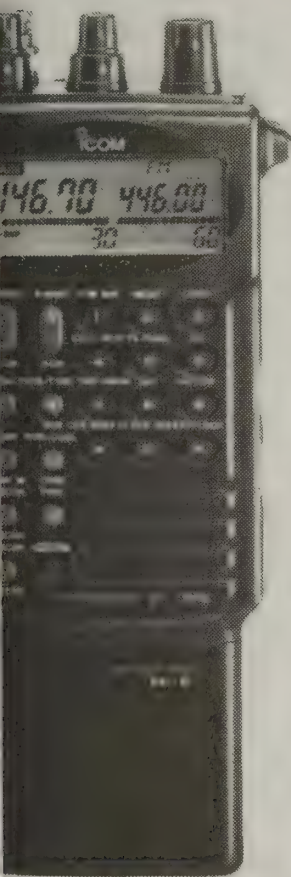


**NEW!**

## KENWOOD TS-450SAT (TS-690S)

**NEW!**

The NEW Kenwood TS-450SAT is for Aspiring DXer's. The TS-450SAT receives from 500KHz through 30MHz. The triple conversion receiver works with Kenwood's AIP (Advanced Intercept Point) to provide no less than 108db of dynamic range. Features include IF shift, AF notch Filter, and Selectable IF Filters. Dual Mode Noise Blankers combat both Pulse noised and "Woodpecker" pulses. The TS-450SAT comes with a built in Automatic Antenna Tuner, while the TS-690S includes 6 Meters at 50 Watts (automatic antenna tuner not included, but can be installed as an option). With DSP-100 installed, then both Incoming and Outgoing Signals can be digitally processed for maximum intelligibility with minimum bandwidth. With the Ultra Smooth Fine tuning, and 100 memories, you can quickly and accurately move anywhere on the spectrum.



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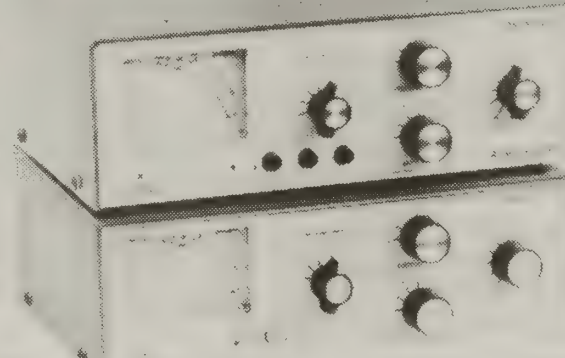


**ET-1 \$129**

**QT-1 \$169**

Need an economical Tuner for tuning that G5RV you just acquired! Then have a look at these tuners from AEA! Both tuners cover 1.8MHz - 30MHz at 300 Continuous Watts (150 Watts on 1.8 MHz). The Transmitter and Antenna tuning controls are continuous capacitors, while the reactance is a 12 position switched inductor. With Cross-Needle metering, you instantly see your forward and reflected power. SWR is also readable at the same time. The antenna selector has 6 positions: COAX 1 tuned and direct; COAX 2 tuned and direct; bypass, and balanced antenna. The QT-1 has dummy load tuned and direct. The balance feed has a 4:1 balun built right into the tuner. The Dual-Movement meter has High and Low settings (300W/30W).

The QT-1 offers all the above features, but also offers a built in dummy load, a peak and average reading meter, and a meter light. Both the ET-1 and QT-1 cabinets are chemically treated so the paint will not scratch or chip off with normal operation. These Canadian built tuners measure only 10.2"w x 9.4"d x 3.5"h.



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**Atlantic Ham Radio** has the only **Full Time Technician** east of the Rockies. We have the ability to repair your radio quickly and with expertise. Shop rate is \$65/hr (minimum 1/2 hour).

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### For the CW Operator:

- Wider control range over smaller range on Internal Keyer. Original Keyer range is 0-200 WPM. Tell us the range you want (ie. 0-20; 0-30; 0-40; 20-60wpm; you specify the range you would like)
- Reduce the White Background noise in CW mode.
- Install 2nd CW filter (FL52A) in 455KHz IF (switchable)

### For the SSB Operator:

- Install Better Quality SSB filter (FL44A) in 455 KHz IF
- Install 2nd SSB filter in 455KHz IF (JRC CFL218A 1.8KHz) (switchable)

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# THE CRRL BOOKSHELF

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ARRL Antenna Book 16th Edition	24.00	4001	<input type="checkbox"/>
Antenna Compendium Vol. 1	11.25	4010	<input type="checkbox"/>
Antenna Compendium Vol. 2	13.50	4020	<input type="checkbox"/>
RSGB HF Antennas for all Locations	17.00	4300	<input type="checkbox"/>
Antenna Notebook, W1FB	11.25	4030	<input type="checkbox"/>
Novice Antenna Notebook, W1FB	11.25	4040	<input type="checkbox"/>
Simple Low Cost Wire Antennas	13.50	4210	<input type="checkbox"/>
Antenna Impedance Matching	17.00	4050	<input type="checkbox"/>
Transmission Line Transformers 2nd Edition	22.50	4060	<input type="checkbox"/>
Practical Wire Antennas	16.75	4090	<input type="checkbox"/>
Reflections	22.50	4070	<input type="checkbox"/>
All About Vertical Antennas	12.50	4230	<input type="checkbox"/>
Yagi Antenna Design	17.00	4080	<input type="checkbox"/>

## TECHNICAL BOOKS

1992 ARRL Handbook	28.00	5001	<input type="checkbox"/>
ARRL Electronics Data Book 2nd Edition	13.50	5010	<input type="checkbox"/>
Radio Frequency Interference 5th Edition	5.75	5020	<input type="checkbox"/>
Interference Handbook	13.50	5070	<input type="checkbox"/>
Hints and Kinks 12th Edition	9.00	5030	<input type="checkbox"/>
Solid State Design	13.50	5040	<input type="checkbox"/>
Design Notebook, W1FB	11.25	5050	<input type="checkbox"/>
Spread Spectrum Sourcebook	22.50	5060	<input type="checkbox"/>

## OPERATING

Complete DXer 2nd Edition	13.50	5510	<input type="checkbox"/>
DXCC Companion	6.75	5520	<input type="checkbox"/>
Transmitter Hunting	21.50	5540	<input type="checkbox"/>

## PACKET/COMPUTERS

Gateway to Packet Radio 2nd Edition	13.50	6000	<input type="checkbox"/>
Proceedings 9th Conference	13.50	6010	<input type="checkbox"/>

## QRP

QRP Notebook, W1FB	7.25	3500	<input type="checkbox"/>
QRP Classics	13.50	3510	<input type="checkbox"/>

## MISCELLANEOUS

50 Years of ARRL	5.25	7000	<input type="checkbox"/>
200 Metres and Down	9.00	7010	<input type="checkbox"/>
From Spark to Space	22.50	7020	<input type="checkbox"/>
Radio Buyers Sourcebook	18.00	7040	<input type="checkbox"/>
Wireless Communication in US	36.00	7030	<input type="checkbox"/>
Night Signals (adventure)	5.75	7200	<input type="checkbox"/>
Tompkins Adventure (Collection 6 Books)	27.00	7210	<input type="checkbox"/>

## STUDY MATERIALS

	PRICE	STOCK #	✓
Talk to the World	19.00	1000	<input type="checkbox"/>
Amateur Basic Question Bank	11.00	1011	<input type="checkbox"/>
Introduction to Morse Code	(OT) 12.00	1201	<input type="checkbox"/>
Code Tapes-5-10 wpm	(OT) 11.25	1210	<input type="checkbox"/>
Code Tapes-10-15 wpm	(OT) 11.25	1220	<input type="checkbox"/>
La radioamateur un universae	23.00	2000	<input type="checkbox"/>

## BEGINNERS

Operating an Amateur Radio Station	1.25	3000	<input type="checkbox"/>
First Steps in Radio	6.50	3010	<input type="checkbox"/>
Premier pas en radio, W1FB (RAQI)	7.25	2020	<input type="checkbox"/>
En Onde	12.00	2030	<input type="checkbox"/>
Help for New Hams, W1FB	11.25	3020	<input type="checkbox"/>

## INSIGNIA

Lapel Pins	(OT) 3.00	1500	<input type="checkbox"/>
Cloth Diamond 5"	(OT) 3.00	1520	<input type="checkbox"/>
Cloth Diamond 3"	(OT) 2.00	1510	<input type="checkbox"/>
ARES Circular Patch 4"	(OT) 4.00	1530	<input type="checkbox"/>
Set of 3 CRRL Logo Decals	(OT) 1.00	1590	<input type="checkbox"/>

## OPERATING AIDS

Log Books-pack of 3	(OT) 10.00	1700	<input type="checkbox"/>
Super Log Books-pack of 3	(OT) 16.00	1710	<input type="checkbox"/>
Radiogram (message) Pad	(OT) 2.00	1730	<input type="checkbox"/>
DXCC Countries List	(OT) 1.50	2510	<input type="checkbox"/>
Grid Locator for North America	(OT) 1.50	2520	<input type="checkbox"/>
Net Directory	(OT) 1.50	2530	<input type="checkbox"/>
World Map (ARRL)	(OT) 14.50	2551	<input type="checkbox"/>
Callbook Prefix Map of the World	(OT) 7.75	3100	<input type="checkbox"/>
Callbook Prefix Map of North America	(OT) 7.75	3110	<input type="checkbox"/>
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## The CRRL Field Organization Forum

### SECTION MANAGER ELECTION NOTICE: RESOLICITATION

To all CRRL members in the Ontario Section: You are hereby resolicited for nominating petitions pursuant to an election for Section Manager. For details on how to nominate, see the Maritimes-Newfoundland Section election notice in 1991 October *QST Canada*.

### SECTION MANAGER ELECTION NOTICE

To all CRRL members in the Maritimes-Newfoundland Section: You are hereby solicited for nominating petitions pursuant to an election for Section Manager. Because of space limitations, a full election notice will not be reproduced here. Nominating petitions will be received at the CRRL Headquarters office until 1600 EST 1991 December 6. For complete details, see the election notice in 1991 October *QST Canada* or contact CRRL. —Jack Strangleman, VE3GV, Field Services Manager

### REPORTS FOR AUGUST 1991

**Alberta:** SM: Don Wilcox, VE6CG; STM: VE6AKY; SEC/TC: VE6AFO; OO: VE6TY. No report available.

**British Columbia:** SM/SEC: Ernie Savage, VE7FB. British Columbia Public Service Net (BCPS, 3729 kHz): our new net manager Jim, VE7JN, reports check-ins: high—179, low—111, total 4556. Ford, VE7DDF, is now back from his honeymoon and is settling into married life. (BCEN, 3652 kHz): our new net manager, Ray, VE7BCL, reports 794 check-ins. Ray says that band conditions are much improved, and many new members have joined BCEN. This has filled out several gaps in BC. He wants it known that net speed is 10 wpm, but off the net, you may send at whatever speed the receiver wants.

**Manitoba:** SM: Bill Crooks, VE4JR; ASM: VE4IX; STM: VE4JA, SEC: VE4PN; NMs: VE4LB, VE4IX, VE4TE. The International Hamfest was held at the Peace Gardens on July 12–14. This annual affair is jointly organized by amateurs from North Dakota and Manitoba. According to Dave, VE4XN, there were 274 amateurs registered, the majority coming from North Dakota and Manitoba, with others coming from South Dakota, Minnesota, Saskatchewan and Ontario. During the hamfest, the weatherman did his best to cut down on the amount of rain the area was having. A foxhunt was organized and run by Wit, VE4WK, and Rob, VE4ROB, on Sunday, July 7. Four teams took part: VE4JBN and VE4DI; VE4AIM and XYL; VE4ALW and VE4ZU; and VE4ACX. The winner was Yori, VE4ACX. All participants then adjourned for refreshments at the double arches on St. James Street. On July 24–27, the Manitoba Threshermen's Reunion was held at Austin, the home of the Manitoba Amateur Radio Museum. Amateur station VE4MTR was operational with 11 operators and 30 other amateurs in attendance. About 380 visitors signed the guest register and toured the museum. Camp 807 at Rushing River Provincial Park in Ontario was

**Reports invited:** CRRL Section Managers (SMs) and their Section-level assistants coordinate traffic handling, emergency communications and bulletin service across Canada. Your SM (name and address appears on page 2 of this *QST Canada*) welcomes reports of individual and club activities for publication in this column. Activities do not have to be related to the CRRL Field Organization or to CRRL.

held on August 2–4 with almost 100 in attendance. Winnipeg ARC elected its 1991–92 executive: president—Judy, VE4JBN; vice president—John, VE4ADS; secretary—Alex, VE4AIM; treasurer—Bill, VE4KX; training coordinator—Tom, VE4AKI; and executive member-at-large—Filidor, VE4FC. Winnipeg ARC has asked me to remind everyone that they still do CRRL name tags. See the ad in last month's *QST Canada* or contact Ed, VE4YU.

**Maritimes-Newfoundland:** Acting SM: Carl Anderson, VE1UU; STM: Mel Lever, VE1VX; BM: Brent Taylor, VE1JH. No report available.

**Ontario:** Acting SM: Larry Thivierge, VE3GT @ VE3WQ; BM: VE3GSA @ VE3JF; SEC: VE3GV; OBS: VE3AR, VE3BCZ, VE3BDM, VE3CDS, VE3FQV, VE3JJY, VE3KLX, VE3LSU, VE3MGQ, VE3MNI, VE3NDI, VE3OSQ, VE3OTH; VE3PPE, VE3TNL, VE3TSA, VE3VQ, VE3XAL, VE3YYY; STM: VE3CYR @ VE3INF; TC: VE3EGO. VE3PAZ advises that he will be moving digipeater VE3DVQ at Levant from 145.01 MHz to 144.99 MHz in the late fall or early winter. Larry is doing this with a view to removing some of the congestion on .01. With special thanks to Terry, VE3KBX, on Monday, August 26 at 2030, the Renfrew County Amateur Radio Club saw a wish come true. You can now link to a mobile in downtown Toronto via the TFM link system. Coming very soon will be VE3ZRR, Renfrew, and VE3MPC, Ottawa. The VE3OQS BBS in Almonte has increased its power from 20 to 50 watts. At the same time, Kieran's XYL, Betty, is the latest addition to the Almonte gang with the call VE3TNO. VE3AAT is a new open repeater operating at 147.27 MHz (+) with autopatch facilities serving the Almonte, Carleton Place and Pakenham areas, 253, 256, 275 and 624 exchanges. I'd like to thank the hard-working editors from the following clubs who regularly send us a copy of their bulletins: Algoma ARC, Border City RC, Dryden ARC, Kitchener-Waterloo ARC, London ARC, Niagara Peninsula ARC, North Shore ARC, Ontario Trilliums, Ottawa ARC, Scarborough ARC, South Pickering ARC, Sudbury ARC, Toronto FMCS, and Windsor Sun Parlour ARC. Without their help and the help of a number of individual amateurs who have taken the time to provide me with news of interesting happenings and events in this Section, this column would not be possible. I can't give you and your club recognition if I don't know what's happening in your area. Unfortunately, with the increase in postal rates these past few years, I no longer receive the number of bulletins that I did in the past. My very sincere thanks to all who have helped. VE3XJ's RTTY DXCC total continues to climb and now stands at 214. STM VE3CYR "flew the flag" for the Ontario Section and had a great time at the Eastern Area Net annual picnic at the home of W2MTA. Japan is running out of amateur call signs. With more than one million licensed amateurs, the JA first call area has exhausted nearly all calls in the JA1, JE1–JS1 and 7K1–7N1 blocks for the Kanto District. Their MTP has announced that it will soon be issuing 7N2 call-

signs for this district. Congratulations to Roxanne, VE3VON, winner of Ottawa ARC's Joe Norton Trust Award for the Advancement of Amateur Radio. Roxanne has performed missionary work in the Dominican Republic, and enjoys communicating with missionaries around the world through the International Mission Radio Association (IMRA) Net. Her interest in Amateur Radio was sparked by her husband, VE3KKU. Regrettably, I report that VE3BVO, VE3IXY and VE3NQT have become Silent Keys.

**Quebec:** SM: Joe Unsworth, VE2ALE; STM: VE2EDO; BM: VE2GOP. VE2BP has stepped down as Quebec Section Manager. Merci à vous, Harold, pour l'ouvrage accompli à travers les années. Je vais demande à tous les clubs de radioamateur dans la province pour des candidats pour combler les postes de EC et PIO. VE2ALE can be reached on packet radio @ VE2FKB. Regrettably, I report that Jim, VE2XX, became a Silent Key on July 31.

**Saskatchewan:** SM: Joan Lloyd, VE5JML. The SARL executive met in Sintaluta on August 6 to discuss plans for the upcoming year. Congratulations to Lorna, VE5LU, and Ernest, VE5CJ of Nipawin on the August 21 birth of their harmonic, Corrine Adele. New VHF repeaters will be going up shortly in the Allan Hills area near Hanley and the Fort Qu'Appelle area. Watch for frequencies and call signs in a future issue. Thanks to all Regina amateurs who provided communications on August 24 for the annual Downtown Dash. Clubs around the province are gearing up for the resumption of club meetings and amateur classes. Here's hoping for better HF band conditions in the near future. 73. ■

## Silent Keys

Conducted By Ray Staines, VE3ZJ

It is with deep regret that we record the passing of these amateurs:

VE3AD, Bill Michael, Rexdale, ON  
VE3ERY, Ray Kissick, Barrie, ON  
VE3GGV, Angelo Albanese, Welland, ON  
VE3IAZ, Tom Griffin, Ingersol, ON  
VE3ICM, Doug Flenniken, Strathroy, ON  
VE4AIQ, Bob Scott, Melita, MB  
VE4GDB, Gordon Breckman, Winnipeg, MB  
VE7BCT, Mike Webb, Falkland, BC  
VE7FDD, Dale Dunn, Kelowna, BC

**Note:** Silent Key reports sent to *QST Canada* must include name, address and callsign of the reporter. To avoid unfortunate errors, reports are confirmed only through acknowledgement from the family of the deceased. Thus, those who report a Silent Key may not receive an acknowledgement from *QST Canada*. ■



## Bandung IARU Region 3 Conference

*In October, we were privileged to attend the IARU Region 3 Conference held in Bandung, Indonesia, both as a representative of IARU Region 2, and as a member of worldwide the IARU Administrative Council. The following reports were prepared by David Sumner, K1ZZ, in mid-October while the conference was still in progress. David serves as editor of WARC Countdown. —Tom Atkins, VE3CDM, Secretary, IARU Region 2*

Representatives of 18 national Amateur Radio organizations in the Asia-Pacific area recently convened the Eighth Regional Conference of the IARU (International Amateur Radio Union) Region 3 Association in Bandung, Indonesia. The conference was officially declared open on Tuesday, October 8, by His Excellency, Mr Azwar Anas, Minister of Tourism, Post and Telecommunications.

In his keynote address, IARU President Richard Baldwin, WIRU, called particular attention to the rapid pace of Amateur Radio development in several countries in the region, particularly Thailand, and the opportunities for greater development in a number of other countries that had established a firm foundation for Amateur Radio through the efforts of their IARU member-societies.

The opening of the conference was marked by the issuance of a first-day cover commemorative postage stamp honoring the host society for the conference: ORARI, the Indonesian Association of Radio Amateurs.

Countries represented at the conference included Australia, Bangladesh, Brunei (by proxy), China, Hong Kong (by proxy), Indonesia, Japan, Korea, Malaysia, New Zealand, the Philippines, Singapore, Solomon Islands (by proxy), Sri Lanka, Thailand, Tonga (by proxy), the United Kingdom, and the United States. President Larry Price, W4RA; International Affairs Vice President Jay Holladay, W6EJJ; Executive Vice President David Sumner, K1ZZ; and International Programs Manager Naoki Akiyama, NX1L, represented ARRL.

The week-long conference considered a number of proposals for amendments to the Constitution of the Region 3 Association, Amateur Radio in developing countries, and operating matters including packet radio, Amateur Radio direction finding, and beacons.

Following the close of the Region 3 Conference on October 12, the worldwide IARU Administrative Council held a three-day meeting in Bandung to finalize

WARC-92 preparations and address other matters of IARU policy.

### REGION 3 PACKET RADIO GUIDELINES

*Bandung, Indonesia, October 12*—The International Amateur Radio Union Region 3 Association, at its triennial conference that concluded here today, adopted voluntary guidelines for packet radio operation. These guidelines, contained in two brief documents entitled *Guidelines for Packet Radio Operators* and *Guidelines for Packet Radio Bulletin Board Operators*, are intended to help promote self-regulation of the Amateur Radio Service in the Asia-Pacific area.

The two documents, adopted unanimously by conference delegates in recognition of the international nature of packet radio and the need to avoid inappropriate traffic, are based on submissions from Australia, Japan, New Zealand, the United Kingdom, Italy and IARU Region 1. They were prepared by a working group led by Kevin Olds, VK1OK, of the Wireless Institute of Australia.

#### Guidelines for Packet Radio Operators

1. Amateur Radio takes pride in being self-regulated. Packet radio operators should continue this tradition.

2. Packet radio operators, like all Amateur Radio operators, should observe published band plans.

3. A packet radio operator should not send the following traffic either directly or via mail boxes:

a. All advertising for selling, buying or trading goods, including amateur equipment, except if permitted by local regulations;

b. All statements or propaganda on political or religious subjects;

c. All inappropriate language, for instance, the use of swear words, obscenities, defamatory or libellous language;

d. All material which may infringe copyright laws; and

e. All material which infringes privacy, whether personal or corporate.

4. To enhance network efficiency, a packet radio operator utilizing a BBS should avoid transmitting unnecessary or redundant messages or documents.

5. A packet radio operator utilizing a BBS should ensure that the call sign of the originating station, including the name of the person responsible in the case of a club station, is clearly shown on every message so that the sender of the message can be identified.

6. A packet radio operator should

avoid messages that are too long for efficient relaying through the network.

7. To enhance network efficiency, packet radio operator utilizing a BBS should ensure that all messages transmitted are addressed to the appropriate group of recipients and not addressed to inappropriate areas.

#### Guidelines for Packet Radio Bulletin Board Operators

1. The operator of a packet radio bulletin board is obliged to provide a reliable service within a defined area for a defined purpose.

2. A packet radio bulletin board operator is morally responsible for all messages forwarded by his system. He should make his best efforts to insure that the traffic forwarded is appropriate for the Amateur Radio Service and in accordance with the *Guidelines for Packet Radio Operators*.

3. HF mailboxes should only be used where there is a genuine need that cannot be provided by VHF or other means.

4. A packet radio bulletin board operator may take action to exclude a user who persistently contravenes the *Guidelines for Packet Radio Operators*. Excluding a user should only be done as a last resort after the user has been warned and where exclusion does not contravene local regulations.

#### OTHER ACTIONS

Among other actions, delegates to the Region 3 Conference also...

☐ reviewed progress reports from the member-societies, particularly with regard to WARC-92 preparations;

☐ adopted constitutional changes to increase the responsibilities of the regional chairman for the overall supervision of, and as spokesman for, the region;

☐ reaffirmed the existing Region 3 band plans without change, except for the addition of frequencies for internationally coordinated beacon stations at 18.110 and 24.930 MHz;

☐ commended IARU involvement in efforts to reduce sources of radio frequency interference through the international standards organization, CISPR;

☐ reaffirmed existing policy that the 10-, 18- and 24-MHz bands be kept free of contests, and encouraged contest organizers to restrict parts of the other bands to be used for their contests, keeping in mind the needs of non-participants and the various license classes internationally;

☐ created a permanent task force for the promotion of Amateur Radio in devel-



oping countries, and a committee to oversee the development of Amateur Radio Direction Finding in the region;

□ adopted a budget for the 1992-94 triennium which included funding for future WARC's;

□ re-elected 9V1RH, ZL2AMJ, VK3ADW, and JA1KAB as directors of Region 3, 9V1RH as chairman, and JM1UXU as secretary, and elected 9M2SS as director to replace 9M2DD who did not seek re-election; and

□ selected Singapore as the site of the 9th Region 3 Conference, to be held in mid-September of 1994.

## BANGLADESH INAUGURATES AMATEUR RADIO

Delegates to the International Amateur Radio Union (IARU) Region were excited to learn that Bangladesh had begun regular licensing of Amateur Radio operators. The first two licenses were issued on October 5 to Saif Shahid, S21A, and Nizam Chowdhury, S21B, president and secretary respectively of the Bangladesh Amateur Radio League (BARL). Six more licences were expected to be issued shortly after.

The BARL report to the Region 3 Conference tells the story:

"August 28, 1991, was a very important day in the calendar of BARL. On this day, during the eighteenth meeting with the Bangladesh Wireless and Frequency

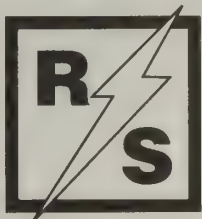
Allocations Board, it was unanimously decided to reintroduce the Amateur Service in Bangladesh. It should be mentioned here that during the pre-independence period, there was Amateur Radio activity in then-East Pakistan. After Bangladesh came into being in 1971, there was no Amateur Radio activity in Bangladesh. BARL was formed on May 20, 1979, to promote the cause of Amateur Radio in Bangladesh and to keep liaison with government agencies. BARL was duly registered as a society for promoting and protecting the cause of Amateur Radio with the Bangladesh Government registrar on December 19, 1979. BARL was elected a the one-hundred and fifteenth member of IARU in 1982. In the Fifth Conference of the IARU Region 3 Association, held in Manila on April 2-5, 1982, BARL was elected as eighteenth member of Region 3. The Bangladesh Wireless and Frequency Allocations Board, in its twelfth meeting held on May 16, 1983, had agreed to allow Amateur Radio to be resumed in a limited manner only to Bangladesh nationals. However, before any amateur licences were issued, the decision was revoked, and Amateur Radio activities remained suspended in Bangladesh.

"Early this year, a new democratic government was elected to power in Bangladesh. At almost the same time, the country suffered one of the worst natural

calamities in recent history. 125,000 people were washed away in a cyclone accompanied by tidal waves up to 15 feet high. As a result of this devastating cyclone, normal telecommunications links between Bangladesh and the rest of the world were cut off for several weeks. Communications between the cyclone-hit area and the capital of Dhaka were also severed. BARL immediately approached the authorities to lift the suspension of Amateur Radio and let BARL members set up emergency communications links. The proposal was accepted by the Ministry of Telecommunications and was sent for approval to other relevant ministries. However, before the file got through all the bureaucratic hurdles in the other ministries, the government need for emergency communications was gone. Nevertheless, BARL's efforts created a positive outlook towards Amateur Radio which eventually resulted in the formal approval of Amateur Radio for Bangladesh.

"Bangladesh is a small country of only 55,000 square miles and a population of 110 million. The average per capita income is only about US \$160. When planning for the development of Amateur Radio, these facts need to be remembered. BARL has developed a plan to set up an emergency communications network at each coastal upa-zilla (county). Existing

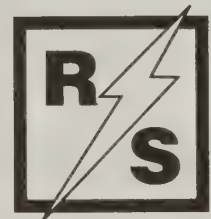
IARU—continued on page 4



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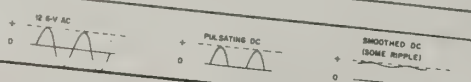






The Canadian Radio Relay League Inc.

**CHAPTER 6**

## Practical Circuits

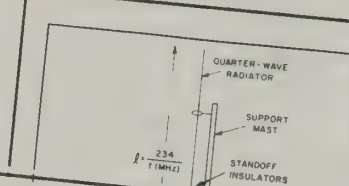


## Ham Radio



**The Quarter-Wave Vertical Antenna**

The quarter-wave vertical antenna is popular among amateurs because it requires only one point of support and can be very effective, especially for DX work. See Fig. 8-17. This antenna consists of a vertical radiator a quarter-wavelength long that is tied to a number of



complete circuits can be constructed. In other words, we are delving deeply into help you gain a basic understanding you with a lot of

ply is shown in Fig. 6-10 to convert the 120-volt AC to a little above 13.8 V. The circuit has but it is the same battery of the type which will operate on 13.8 volts.

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**The Canadian Radio Relay League**  
Box 56, Arva, ON N0M 1C0





## Multimode Radios

Many new Amateurs have been going out and buying handheld radios, paying very good prices for them. After a while many of these handhelds wind up in the corner as people tire of the novelty of talking on a tiny radio while sitting in the backyard. For those who have not yet purchased such a radio, consider paying a few dollars more and buying a multimode radio. No, not a multiband radio, but a multimode radio.

Why do that, you may ask. A multimode radio is the only easy way to make full use of the entire VHF or UHF band that you want to operate. Remember, CRRL band plans split our VHF-UHF bands into various subbands. These band plans, consistent with band plans developed by IARU, are supported not only in Canada but throughout the world. They delineate what modes operate where, in such a way that no mode will interfere with the operation of another. That's why the 2 metre band is divided between FM simplex, FM repeaters, space communications through OSCAR, packet radio, SSB and even CW. Without these band plans, our bands would be a mess where no amateurs could operate and enjoy themselves.

Back in the 1960s and early 1970s the 2-metre band was split into 144–146 MHz for AM, SSB and OSCAR, and 146–148 MHz for FM simplex and repeaters. Since then, the explosive growth of FM has resulted in additional FM channels below 146 MHz, but the basic band plan has been maintained and continues to be respected. Without some planning, the ensuing chaos could have resulted in our losing our band. Our activities are monitored closely by DOC and those who have an interest in taking over our spectrum. We have to maintain a disciplined operation, to keep our bands and to display our pride in being radio amateurs. The best way to maintain our band and our pride is to make good use of our spectrum. In VHF-UHF, this means using various modes and making sure that we stay active. Consider helping us all maintain our valuable VHF-UHF spectrum. Invest in a multimode radio, and operate FM, packet radio, SSB and CW.

To help the Amateur Service along this line, we certainly could use a boost from the big three radio manufacturers. They delight in advertising FM-only VHF-UHF radios but we rarely see splashy ads for their VHF-UHF multimode products. To change things, we amateurs need to tell big three marketing people to have their engineers produce some simple, solidly

### Canadian Radio Relay League Band Plan: 144–148 MHz

Status: Amateur Exclusive

Frequency (MHz)	Utilization
144–144.1	EME and terrestrial CW
144.1	CW calling frequency
144.1–144.2	CW/SSB weak-signal operation
144.2	SSB calling frequency
144.2–144.275	AM narrow-band modes (ACSSB, SSB BW ≤ 2.5 kHz)
144.275–144.3	Propagation beacons
144.3–144.5	Exclusive OSCAR subband
144.5–144.6	FM repeater inputs (primary), linear translator inputs (secondary)
144.6–144.9	FM repeater inputs
144.9–145.1	Packet (see footnote 1)
145.1–145.2	FM repeater outputs (primary), linear translator outputs (secondary)
145.2–145.5	FM repeater outputs
145.5–145.8	Experimental modes (see footnote 2)
145.8–146.0	Exclusive OSCAR subband
146.01–146.37	FM repeater inputs
146.4–146.58	FM simplex operation (see footnote 3)
146.52	National FM calling frequency
146.61–147.39	FM repeater outputs
147.42–147.57	FM simplex operation
147.6–147.99	FM repeater inputs

Footnotes:

- 1) Digital (packet) operations on 20-kHz channelling, 10 channels 144.91–145.09 MHz
- 2) Operation in this subband is on a temporary basis only for experimentation and development work. CRRL requests that 145.5, 145.525, 145.55 and 145.750 MHz be kept clear for international Space Shuttle and MIR FM-voice communications. CRRL urges all amateurs to conduct experiments on other bands, particularly on 50 and 220 MHz, where utilization is lower than on 144–148 MHz.
- 3) 146.40, 146.43, 146.46 MHz continue to be used as repeater inputs in some areas.

designed, inexpensive FM/SSB/CW. Bells and whistles on a radio designed using 1970s technology is basically an exercise in packaging, and doesn't produce a radio that can stand up to severe intermod. Lets see some 1990s passive mixer designs, clean synthesizers and real multimode performance.

### 220-MHz UPDATE

A recent conversation with a senior DOC officials brought news that Canadians are still exclusive in the entire 220–225-MHz band. Theoretically, this could change at any time, but for now and the foreseeable future, we keep the whole five MHz. That means that the 220–222 MHz segment which US amateurs recently lost is still available to us. I suggest that we continue to use this segment for packet radio, and FM-repeater control links, especially long-haul links that don't point towards the US border. We have the opportunity to hold on to this band. Keep the packet activity growing below 222

MHz. CRRL has published a contingency bandplan for 222–225 MHz. Shortly, we will publish a plan for the full 220–225 based on the current situation. We would be interested your comments on how we can we best use 220–222 MHz so we don't lose it.

### ON THE BANDS

**50 MHz:** Activity has been pretty quiet so far this fall, except of course at the QTH of that inveterate 6-metre DXer, Mike, VE1XDX, of Head of Chezzetcook, Nova Scotia. Mike writes that the first fall season F2 was noted on October 7 between 1545 and 1620 UTC. Mike copied beacon transmissions from V51VHF at 50.018 MHz (beacon power 50 watts) running 559–569, and 9L1US on 50.091 (beacon power 10 watts) running 419–529. Mike laments that no amount of calling on his end could raise anyone in Africa. However, on October 9, he and Bob, VE1YX, worked PY0FF on 50.089-MHz CW with signals running



599 at 1228 UTC. Also heard were the 9L1US beacon, and the PY2AMI beacon. Mike reports that nothing else was heard on the band, but he did note weak 48.25-MHz video buzz during the opening. Lets hope that reports of a mini-resurgence of solar activity manage to keep the band open for yet another unprecedented season!

Unfortunately, the *50-MHz DX Bulletin* is no longer being edited by Harry, KA3B. Family matters made it impossible for him to continue. Fortunately, Shel Remington, N16E, has volunteered to carry on. For those interested in receiving this excellent bulletin, drop Shel a note at Box 1222, Keaau, Hawaii, 96749. Here are some gleanings from the September issue:

The Kenwood TS-690S is a new HF/VHF transceiver with 100 watts on HF, 50 watts on 50 MHz, and continuous receiver tuning to 60 MHz. Reports indicate that the TS-690 is vastly superior to the TS-680 for 6-metre operation.

Look for a new beacon from the Azores this year. Apparently, N4LTA has almost finished and it will soon be QRV with 5 watts on 50.013 MHz using a newly-designed omnidirectional horizontally polarized antenna supplied by Mike, K6MYC. The beacon will be maintained by Uniao Radioamadores Azores with CU3AA and CU3AK responsible. Location: 366 metres above sea level on the northeast corner of Terceira Island (HM68.)

Czech amateurs may soon gain access to 50 MHz. They have held several meetings with their PTT. Thanks to efforts of several Swedish and Estonian amateurs, ES0SM was recently active from Saarna Island. They stayed with a single frequency, 50.11 MHz, and worked many UK stations on August 9.

Information from a source within the Polish PTT indicates that SP amateurs may gain 6-metre privileges late in 1991.

Get those stacked arrays ready. The South Sandwich DXpedition, set for 1992 March 20, will include 6-metres in its operation.

**144 MHz:** Grant, VE6TA, reports much success operating EME (moonbounce). Stations worked back in March included W5UN and KB8RQ. Then, Grant ran 170 watts to two Cushcraft 215-WB yagis. Early in June, Grant upgraded his system to four M-squared 17-element yagis and he began using a TE Systems solid-state amplifier running 400 watts, for an ERP of 63,000 watts. With this setup, he has now QSOed 17 stations including a 2-yagi station, PA0JMV. Grant's success proves that today's modern equipment can make moonbounce something that any VHFer can try and have success with. Let's hope more Canadians follow Grant's lead.

If you live in Ontario and Quebec

don't forget to check into the Gaslight Net every evening at 2000 local time on 144.240-MHz USB. To date, over 245 individuals have stopped by to say hello.

**220 MHz:** With our American friends forced to move up to 222 MHz for SSB and CW, the Canadian weak signal contingent has been forced to move up as well, simply to make QSOs. Fortunately most 220-MHz equipment and antennas are wideband enough to accommodate the shift. 222-MHz activity was light during the September VHF QSO Party. However, signals that appeared at 222.1 MHz were very strong. Remember that the 220-MHz band is a noise-free, unspoiled piece of VHF real estate, like 2 metres used to be in Toronto prior to the arrival of the commercial stations below 144 and above 148 MHz.

### PERSIEDS METEOR SHOWER

From beautiful Regina, Ross, VE5LY, writes that during the Persieds shower, conditions were often disturbed with almost complete loss of meteor bursts due to aurora borealis blocking the signals! Ross writes that August 10 provided a spectacular view of the auroral front spread overhead and almost to the southern horizon. His first and only meteor-scatter contact that evening was with WA9LWJ (EN54). Things got better the following morning when Ross worked KB7N (CN97). On August 11, Ross managed QSOs with WB9OJR (EN50) and K7VNU (CN97). August 12 brought Ross some 220-MHz DX with WA9JFM in Wisconsin (EN52) and W2CRS/0 in Colorado (DM78) less than 15 minutes into the sked! These represent the first 220-MHz QSOs between Saskatchewan and Wisconsin-COLORADO. Ross also noted that his 144-MHz states total now stands at 35. Congratulations Ross, and keep up the activity.

Farther east, Kevin, VE3KDH, was a busy during Persieds with contacts far and wide including K5YY (EM33), WB5IGF (EM45), KG5VE (EM42), K5UR (EM35), K0KEY (EM07), WA4VCC (EM94), WB5IGF (EM45), W5FYZ (EM32), WR0F (EM29), VE4AQ (EN19) and NT0K (EN17), all on 144-MHz SSB.

Don't neglect those other meteor showers throughout the year. Get on, make some QSOs and enjoy Mother Nature's rare events.

### SEPTEMBER VHF QSO PARTY

We have reports from far and wide. Conditions generally were pretty poor, but the level of activity continues to pick up. In Quebec, the gang at VE2UMS—Gilles, VE2DRW, Daniel, VE2BAP, Gaetan, VE2HGG, Martin, VE2MLX and logger Nathalie—racked up a substantial score from the top of 3625-foot Mount Megantic (FN45.) They operated 6-metre SSB, 2-metre FM and SSB, and 70-centimetre

FM. This time, they went horizontally polarized on 6 and 2 metres, and made substantial improvements in both their DX and their total number of QSOs. Congratulations to all involved. Let's hope that propagation is superb next June, and that we'll hear VE2UMS on 432-MHz SSB and CW with horizontally-polarized antennas. FN45 is going to be a very popular grid square.

Out west, John, VE7FQM, operated 6 and 2 metres and 70 centimetres from a mountain-top location at 6300 feet. John had a great time, got some QSOs and managed to bag a buck on Monday morning. He made it home, not only with a full logbook, but also with a freezer full of steaks!

### CONTEST MEETING

Another post-contest bash was successfully held at the residence of that new gentleman of leisure, Clark, VE3WCB. Clarke retired at the just the right time. He can now spend all his waking hours monitoring the bands, ragchewing and enjoying his grandchildren. We wish Clarke and his wife Betty lots of happiness!

At the meeting, discussion ranged from the joys of VHF contesting, SSB operations and NET activity to homebrewing. Contrary to what the armchair experts say, some amateurs still build their own equipment. VE3BGH displayed his 2-metre kilowatt-amplifier RF deck. Dick, VE3FAC, brought the master power control panel to his station. Press the big red button and voila! the shack powers up. If problems arise, the big red button kills everything before it kills the operator. John, VE3EZF, brought some homebrew 10-GHz gear and described his 10-GHz SSB station.

Speaking of 10 GHz, Bob, VE3BFM, brought a tape recording of a 10-GHz SSB QSO from his car over a 135-mile path to a station in New Hampshire. At the time, Bob was using a quarter-wave vertical in his back window. He even brought the vertical to show off! Now let's see. If one wavelength is 3 centimetre, then one-quarter wavelength is 0.75 centimetre, or 7.5 millimetres! Steve, VE3SMA, reported that this year's 10 GHz contest yielded the highest activity yet. In fact, Steve stated, activity in Southern Ontario was second only to that in Southern California. Steve urged everyone to get on 10-GHz FM or SSB.

Kevin, VE3KDH, reported on contest activity, and gave a presentation on the state-of-the-art automotive electronics, including antilock braking systems, fancy direction finding gear, sound systems, engine controls and even car heating systems. The bottom line is that very soon most cars will be controlled by digital electronic systems operating off of a bus much like in today's PCs. No more wiring harnesses, but a lot more RF, particularly



## Vernon BC ARES

North Okanagan Amateur Radio Club (NORAC) is an active group with a high profile in central BC. One of their activities is the annual Okanagan Hamfest. By next year they will have achieved a first by renaming it the Sky High Hamfest and holding it at Silver Star Mountain. They have reserved this prestigious resort for a whole week, and a hamfest at this tremendous location should be one of the best.

Affiliated with NORAC is the thirty-member Vernon ARES group which provides an effective emergency communications service for the area. Under the direction of EC Bob Lindley, VE7BSL, the group has assisted in numerous search and rescue operations in the area—three in the month of May alone. The weekly ARES net brings an average of 14 check-ins. Exercises are held from time to time to maintain and sharpen skills as communicators and to test ARES facilities.

The most recent exercise was held on the morning of May 25, in conjunction with Red Cross and the Emergency Social Services (ESS) organization, part of the BC Provincial Emergency Program. The scenario was an interruption of the city's natural gas supply, due to a construction accident. This resulted in loss of heat throughout the city—on a bitterly cold winter day with an outdoor temperature of minus 30 degrees F. There was an immediate need to evacuate school children, and residents of old age homes and apartments, and move them to ESS shelters.

Net Control was manned by operators Lowell, VE7LRL, Dodie, VE7DLT, Dorothy, VE7DAL, Evelyn, VE7ELZ and George, VE7BQD. Three field stations were established: Bruce, VE7BRZ, and Anita, VE7NTA, were at stationed at McCulloch Court seniors' residence; Trudy, VE7GTD, and Blake, VE7EFA, at Shubert Centre residence, and Duncan, VE7ZAV, and Muriel, VE7EGB, at West Vernon School.

In the first hour of the exercise, some 25 messages were passed between the four locations. After a simulated repeater failure, the net moved to 146.52-MHz simplex. Without the repeater, it was more difficult to stay in touch, and most traffic had to be relayed. The problem was solved by Lee, VE7JLP, and Bob, VE7BSL, who rushed to the field locations with better antennas to replace those on the handhelds. A further 25 messages were handled on simplex. Traffic dealt with car and bus crashes clogging intersections, disabled transport vehicles, food donations, missing persons inquiries, etc. The exercise went off very well indeed

and both ESS and Red Cross expressed their satisfaction with ARES' contribution. A few items were noted for future emphasis, including additional practice in handling radiograms.

With experience and training like this, Vernon ARES was well prepared to assist the recent victim of a rattlesnake bite. This incident occurred at Deep Lake, an area infested with rattlesnakes, near Cold-

stream Ranch, in rugged rangeland near Vernon. The area is inaccessible to normal means of transport. The victim, a university student who was an expert on rattlesnakes, and George, DG1RAE, were in the hills behind the ranch performing work related to a study of rattlesnakes: their habitats, migration patterns, etc. Apparently, the victim picked up a large snake, by the tail, preparing to measure its

## Field Organization Reports August 1991

### CRRL Section Emergency Coordinator Reports

Reports were received from the following SECs (DECs and ECs reporting to SECs are listed in brackets) denoting a total ARES membership of 1132.

Reporting	ARES Members
VE3GV (VE3s AFP, GNW, JJA, LPM, SV, TNL)	622
VE4JR	56
VE6AFO (VE6s AMM, CBH)	306
VE7FB	148

### CRRL Section Traffic Manager Reports

Call	Orig	Rcvd	Sent	Divd	Total
VE1DLC	1	7	1	5	14
VE1ALU	1	5	5	1	12
VE1YS	0	4	8	0	12
VE1VAR	1	0	1	0	2
VE2ALE	0	76	310	0	386
VE2GOP	0	46	71	0	117
VE3GNW	0	56	64	0	120
VE3GT	0	40	56	1	97
VE3AJN	0	56	33	1	90
VE3DVE	0	32	54	0	86
VE3CYR	0	64	10	1	75
VE3GSQ	0	42	30	1	73
VE3WV	0	46	3	1	50
VE3BDM	0	20	24	0	44
VE3LPM	0	19	20	3	42
VE3SB	0	15	16	1	32
VE3KXB	1	12	14	0	27
VE3DBG	9	4	10	3	26
VE3SOZ	1	9	4	5	19
VE3KCZ	1	5	3	4	13
VE3MNI	2	2	6	2	12
VE3BAJ	0	2	6	2	10
VE3FGU	2	2	2	0	6
VE3NVJ	0	1	5	0	6
VE4FP	0	43	52	5	100
VE4JR	0	38	23	7	68
VE5KZ	5	11	8	2	26
VE5JML	0	5	0	0	5
VE6CE	7	7	12	0	26
VE6CPP	0	0	10	10	20
VE6GIL	0	6	0	13	19
VE6AKY	3	6	6	2	17
VE6ABC	0	4	4	0	8
VE7BNI	14	142	200	11	367
VE7CCJ	6	51	46	3	106
VE7ANG	2	61	399	1	103
VE7XA	0	16	31	5	52
VE7FAZ	0	19	25	2	46
VE7FME	1	21	16	1	39
VE7EGM	1	16	9	1	27
VE7FB	0	12	7	2	21
VE7OM	0	10	11	0	22
VE7GKA	0	13	2	0	15
VE7CZW	0	11	1	0	12
VE7BZI	1	5	1	5	12
VE7GDS	0	10	1	0	11
VE7FRZ	2	3	2	0	7
VE7WI	0	4	1	0	5

### National Traffic System

Net (Mgr)	Sess	QNI	QTC
APN (VE1YS)	31	149	68
KTN (VE3AJN)	12	79	14
OLN (VE3POJ)	31	645	26
OPN (VE3AJN)	31	235	186
OQN-D (VE3ORN)	23	25	22
OQN-E (VE3CYR)	29	71	66
OQN-L (VE3GSQ)	23	23	8
MEPN (VE4LB)	31	593	15
MMWX (VE4TE)	31	313	19
SPN (VE5CJ)	26	839	3
APSN (VE6AKY)	31	394	4
ATN (VE6CPP)	31	93	38
BCEN (VE7EJU)	31	794	352

### Brass Pounders' League

This listing is available to amateurs who report to their SM a traffic total of 500 or a sum of originations and delivery points of 100 or more for any calendar month. All messages must be handled on amateur frequencies, using standard ARRL-CRRL form, within 48 hours of receipt.

BPL: None this month.

### Public Service Honour Roll

(1991 Revision) This listing is available to amateurs whose public service performance during the month indicated qualifies for 70 or more points in the following eight categories (as reported to their SM). Please note maximum points for each category: (1) Checking into a public service net using any mode, 1 point each, maximum 60; (2) Acting as a Net Control Station (NCS) for a public service net using any mode, 3 points each time, maximum 24; (3) Performing assigned liaison between public service nets, 3 points each time, maximum 24; (4) delivering a formal message to a third party, 1 point each, no maximum; (5) Originating a formal message from a third party, 1 point each, no maximum; (6) Serving as a CRRL SM or field appointee, 10 points for each office or appointment, maximum 30; (7) Participating in a communications network for a public service event, 10 points each event, no maximum; and (8) Providing and maintaining an automated digital system that handles messages in standard ARRL-CRRL format, 30 points. Amateurs who qualify for Public Service Honour Roll 12 consecutive months, or 18 months out of a 24-month period, will be awarded a special certificate from CRRL Headquarters.

PSHR: VE3LPM (79), VE3GNW (76), VE3CYR (75), VE3GT (70), VE3BDM (69), VE4LB (64)

### Service and Specialized Nets

Independent Net Managers: Your monthly reports are welcomed. Send to CRRL, Box 7009, Station E, London, ON N5Y 4J9.

Net (Mgr)	Sess	QNI	QTC
ARES Canada (VE3GV)	4	68	2
CRRL ONTARS (VE3FQV)	31	9756	0
Grey-Bruce (VE3WV)	30	90	17
Grey-Bruce SS (VE3WV)	30	100	35
Aurora-1 (VE4AHG)	30	850	7
Aurora-2 (VE4FP)	26	1002	0
ARES Saskatchewan (VE5FY)	4	112	1
ARES Alberta (VE6AKY)	8	131	3



length. He became distracted by a second snake near his feet, at which point the first snake bit him, sinking its fangs into his index finger.

George, an exchange student from Bavaria, Germany, was a new amateur. Fortunately, he had his European 2-metre handheld transceiver with him. He immediately called for help over the NORAC repeater. The initial call was on CW using his transceiver's 1750-Hz repeater access tone. This call was answered by Ken, VE7KRD, Leigh, VE7JLP and Jim, VE7EFM. They were told that the victim was conscious and his condition was stable. George had lanced the bite area to promote bleeding and remove of some of the venom. However, it was urgent that the victim receive hospital care at the earliest possible moment.

As first operator to answer, Ken began notifying the emergency services. Ken is a part-time ambulance paramedic with the BC Provincial Ambulance Service. He called the Ambulance Dispatch Centre in Kamloops on a special "crew line", providing as much information as was available. Dispatch decided to send an ambulance to Coldstream Ranch right away, to stand by until the victim could be brought there. Leigh continued to monitor George's transmissions, while Jim notified the emergency department at Vernon Jubilee Hospital about the impending

arrival of a snakebite victim. Great difficulty was experienced determining the exact location of the victim. This situation was exacerbated when the battery pack on George's handheld gave out.

While the search continued, the Provincial Ambulance dispatcher was kept advised of the progress of rescue efforts. He also contacted Provincial Ambulance headquarters in Victoria which authorized a helicopter to aid in the rescue. Within half an hour of takeoff, the Provincial Ambulance helicopter crew reached the victim, and initiated emergency care according to their protocols. At this point, Ken decided there wasn't much more he could do from his home. He proceeded to the hospital with his handheld, continuing to monitor the repeater for further developments.

When Ken arrived at the hospital, he learned that George was back on the air with a fresh battery pack for his handheld and, and once more, was able to provide communications. The patient's vital signs were relayed to emergency-room staff via Amateur Radio. Apparently, the patient was still conscious, but his legs and arms were becoming numb, his mouth and lips were extremely dry and he was having difficulty speaking. It was interesting to note that communications from the scene using Amateur Radio was much better than communications using the ambu-

lance radios.

Thirty minutes later, the patient was transported via helicopter to the ambulance at Coldstream Ranch. Rough terrain—a steep slope between the place where the patient had been bitten and the place where the helicopter had been able to land—had caused delays. Finally, the patient was transferred to ambulance and taken to the hospital.

Snake bites are rare, even in this part of Canada, and this would seem to be one of the most unusual emergency cases ever handled by Amateur Radio in BC. The NORAC repeater worked flawlessly throughout this rescue and the operators involved did respond in a truly professional manner to provide the aid that was desperately needed. If it had not been possible to obtain communications from the scene or to rescue the victim so quickly, the outcome might have been far less favourable than it was.

We thank Ken, VE7KRD, for his writeup on this unusual incident, and to Dodie, VE7DLT, for passing Ken's write-up along to us. —Bob Boyd, VE3SV

*This column appears in both The Canadian Amateur and in QST Canada. We hope it serves as an ongoing source of news and information about ARES for members of CRRL and CARF. We welcome your material for use in future columns.* ■

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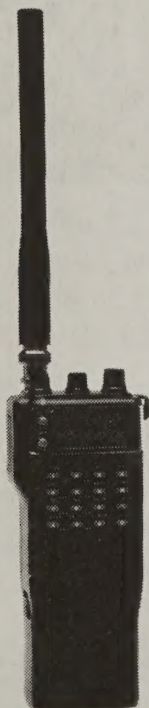
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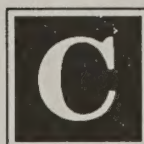
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